

WHAT IS CLAIMED IS:

1. A method for converting telecommunications data from a first protocol to a second protocol, the method comprising:
 - receiving input signals in conformance with the first protocol;
 - mapping the input signals to an abstract, protocol-independent information format;
 - converting information from the abstract, protocol-independent information format to protocol-specific output signals; and
 - transmitting the output signals in conformance with the second protocol.
2. The method of Claim 1, wherein the first protocol is selected from a group of protocols comprising V5.x, Megaco, MGCP, Q.931, QSIG, H.323, SIP, and MFC/R2.
3. The method of Claim 1, wherein the second protocol is selected from a group of protocols comprising POTS, loop start, ground start, E&M, VoATM, Megaco, MGCP, H.323 and SIP.
4. The method of Claim 1, wherein the abstract, protocol-independent information format comprises a super-set of signaling information contained in the first and second protocols.
5. The method of Claim 1, wherein mapping the input signals is carried out by a first protocol handler.
6. The method of Claim 1, wherein converting information is carried out by a second protocol handler.
7. The method of Claim 1, wherein converting information comprises converting protocol-specific address information to a generic Terminal ID.
8. The method of Claim 1, further comprising performing an operation using an operation module.

9. The method of Claim 8, wherein the operation comprises a management operation.

10. The method of Claim 1, wherein the input signals are received over one or more telecommunications networks.

11. The method of Claim 10, wherein the telecommunications networks comprise an IP network or a PSTN network.

12. The method of Claim 10, wherein the telecommunications networks comprise an IP network or a PSTN network.

13. The method of Claim 1, wherein the output signals are transmitted over one or more telecommunications networks.

14. The method of Claim 12, wherein the telecommunications networks comprise an IP network or a PSTN network.

15. A telecommunications gateway in communication with a plurality of customer equipment devices having different customer protocols and with a plurality of service provider equipment devices having different service provider protocols, the telecommunications gateway comprising:

a plurality of protocol handlers, wherein each protocol handler is associated with a given customer protocol or service provider protocol; and

a plurality of operation modules in communication with each of the protocol handlers,

wherein each of the protocol handlers is configured to convert input signals in conformance with the associated protocol to a generic information format,

wherein each of the protocol handlers is further configured to convert information from the generic information format to output signals in conformance with the associated protocol, and

wherein each of the operation modules is configured to perform a telecommunications operation using information in the generic information format.

16. The telecommunications gateway of Claim 15, wherein the service provider protocols are selected from a group of protocols comprising V5.x, Megaco, MGCP, Q.931, QSIG, VoATM, H.323, SIP and MFC/R2.

17. The telecommunications gateway of Claim 15, wherein the customer protocols are selected from a group of protocols comprising POTS, loop start, ground start, E&M, VoATM, Megaco, MGCP, H.323 and SIP.

18. The telecommunications gateway of Claim 15, wherein the generic information format comprises a super-set of signaling information contained in the protocols supported by the telecommunications gateway.

19. The telecommunications gateway of Claim 15, wherein the operation modules comprise state machines.

20. The telecommunications gateway of Claim 15, wherein converting information in conformance with an associated protocol to a generic information format comprises converting protocol-specific address information to a generic Terminal ID.

21. The telecommunications gateway of Claim 15, wherein each operation module is configured to perform one or more management operations.

22. The telecommunications gateway of Claim 15, wherein the telecommunication gateway is in communication with a plurality of service provider equipment devices over one or more telecommunications networks.

23. The telecommunications gateway of Claim 22, wherein the telecommunications networks comprise an IP network and/or a PSTN network.

24. A machine readable medium comprising machine readable instructions for causing a computer to perform a method comprising:

receiving input signals in conformance with a first protocol;
mapping the input signals to an abstract information format;

converting information from the abstract information format to protocol-specific output signals; and
transmitting the output signals in conformance with a second protocol.

25. The machine readable medium of Claim 24, wherein the first protocol is selected from a group of protocols comprising V5.x, Megaco, MGCP, Q.931, QSIG, VoATM, H.323, SIP and MFC/R2.

26. The machine readable medium of Claim 24, wherein the second protocol is selected from a group of protocols comprising POTS, loop start, ground start, E&M, VoATM, Megaco, MGCP, H323 and SIP.

27. The machine readable medium of Claim 24, wherein the abstract information format comprises a super-set of signaling information contained in the first and second protocols.

28. The machine readable medium of Claim 24, wherein mapping the input signals is carried out by a first protocol handler.

29. The machine readable medium of Claim 24, wherein converting information is carried out by a second protocol handler.

30. The machine readable medium of Claim 24, wherein converting information comprises converting protocol-specific address information to a generic Terminal ID.

31. The machine readable medium of Claim 24, further comprising causing the computer to perform an operation using an operation module.

32. The machine readable medium of Claim 31, wherein the operation comprises a management operation.

33. The machine readable medium of Claim 24, wherein the input signals are received over one or more telecommunications networks.

34. The machine readable medium of Claim 33, wherein the telecommunications networks comprise an IP network or a PSTN networks.

35. The machine readable medium of Claim 24, wherein the output signals are transmitted over one or more telecommunications networks.

36. The machine readable medium of Claim 35, wherein the telecommunications networks comprise an IP network or a PSTN network.